

From M. Arago, dated Paris, Sept. 29, 1843, acknowledging the receipt of Transactions and Proceedings of this Society.

The following donations were announced:—

FOR THE LIBRARY.

Catalogue of Books added to the Library of the Library Company of Philadelphia, since the Large Catalogue of 1835, to January, 1844. Third Edition. 1844. 8vo.—*From the Directors of the Company.*

Insanity among the Coloured Population of the Free States. By Edward Jarvis, of Dorchester, Massachusetts. Extracted from the American Journal of the Medical Sciences, for January, 1844.—*From the Author.*

ADDITION TO THE LIBRARY BY PURCHASE.

Journal des Observations Physiques, Mathématiques et Botaniques, faites par l'ordre du Roy sur les Côtes Orientales de l'Amérique Méridionale, et dans les Indes Occidentales, depuis l'année, 1707, jusques en 1712. Par le R. P. Louis Feuillée. Paris, 1714—1725. 3 Vols. 4to.

On motion of Mr. Kane, Mr. Dillingham was appointed to prepare an obituary notice of Judge Gaston, whose decease was reported to the Society at its last meeting.

Professor Frazer announced the death of Dr. Marmaduke Burrough, at Mount Holly, at the age of 46; and on motion of Mr. Lea, Dr. Morton was appointed to prepare an obituary notice of him.

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*Stated Meeting, March 1.*

Present, twenty members.

Dr. BACHE, Vice-President, in the Chair.

Letters were received:—

From the Hon. B. F. Butler, dated New York, Feb. 22, 1844, acknowledging his election as a member of the Society:—

From the Royal Asiatic Society, dated London, Dec. 9, 1843,—the Society of Antiquaries, dated London, Jan. 28, 1844,—the Linnean Society, dated London, Dec. 21, 1843,—the Geological Society, dated London, Dec. 14, 1843, acknowledging the receipt of Proceedings of this Society,—the Royal Astronomical Society, dated London, Dec. 18, 1843, on forwarding certain monthly notices of that Society,—the Consul of the United States at London, dated London, Jan. 19, 1844, in reference to certain parcels which, at the request of the Russian Consul-General in London, he had forwarded to this Society.

The following donations were announced:—

FOR THE LIBRARY.

Monthly Notices of the Royal Astronomical Society of London, containing Abstracts of Papers, and Reports of the Proceedings of the Society, from June, 1833, to June, 1836. Vol. III. London, 1836. 8vo. Vol. IV. No. 2. December 9, 1836. Vol. V. Nos. 6, 7, 8, 9, 14, 16. Vol. VI. Nos. 1 and 2.—*From the Society.*

The Journal of the Royal Asiatic Society of Great Britain and Ireland. No. XIV. London, 1843. 8vo.—*From the Society.*

Mémoires de l'Académie Impériale des Sciences de Saint-Petersbourg. Vime Série. Sciences Mathématiques, Physiques et Naturelles. Tome Cinquième. Première Partie: Sciences Mathématiques et Physiques. Tome Troisième, 1ère Livraison. Saint-Petersbourg, 1842. 4to. 2de et 3ème Livraisons, 1843. Tome Septième. Seconde Partie: Sciences Naturelles. Tome Cinquième, 1ère et 2de Livraisons. Saint-Petersbourg, 1843. 4to. Sciences Politiques, Histoire, Philologie. Tome Sixième, 1ère et 3ème Livraisons. Saint-Petersbourg, 1843. 4to.—*From the Imperial Academy.*

Mémoires Présentés à l'Académie Impériale des Sciences de Saint-Petersbourg, par divers Savans, et lus dans ses Assemblées. Tome Quatrième, 5ème Livraison. Saint-Petersbourg, 1843. 4to.—*From the same.*

Recueil des Actes des Séances Publiques de l'Académie Impériale des Sciences de Saint-Petersbourg, tenues le 31 Décembre, 1841, et le 30 Décembre, 1842, et de la Séance Solennelle tenue en l'hon-

- neur de M. le Président de l'Académie, le 12 Janvier, 1843. Saint-Pétersbourg, 1843. 4to.—*From the same.*
- Kongl. Vetenskaps-Academiens Handlingar, för år 1841. Stockholm, 1842. 8vo.—*From the Royal Swedish Academy.*
- Årsberättelse om Framstegen i Kemi och Mineralogi afgifven den 31 Mars, 1841; af Jac. Berzelius, K. V. Acad. Secret. Stockholm, 1841. 8vo. The same work for the years 1842 and 1843.—*From the same.*
- Årsberättelse om Zoologiens Framsteg under åren, 1840, 1842, till Kongl. Vetenskaps-Akademien afgifven af Zoologiæ Intendenterna vid Rikets Naturhistoriska Musæum. Andra Delen (Insecta, Linn.) af C. H. Boheman. Stockholm, 1843. 8vo.—*From the same.*
- Berättelse om Astronomiens Framsteg för Åren, 1837—1841. Af N. H. Selander. Stockholm, 1843. 8vo.—*From the same.*
- Årsberättelse om Technologiens Framsteg, till Kongl. Vetenskaps-Academien afgifven den 31 Mars, 1841; af G. E. Pasch. Stockholm, 1843. 8vo.—*From the same.*
- Atti della Prima Riunione degli Scienziati Italiani tenuta in Pisa nell' Ottobre del 1839. Pisa, 1840. 4to.—*From the Italian Association, through Vincenzo Antinori, Director of the Museum of Natural History of Florence.*
- Atti della Terza Riunione degli Scienziati Italiani tenuta in Firenze nel Settembre del 1841. Firenze, 1841. 4to.—*From the same.*
- The African Repository and Colonial Journal. Vol. XX. No. 2. February, 1844. 8vo.—*From the American Colonization Society.*
- Report of a Committee of the Delaware County Institute of Science, on the Great Rain Storm and Flood which occurred in that County on the 5th of August, 1843: with a Map of the County. Read at a Special Meeting of the Institute, January 4, 1844. Chester. 8vo.—*From the Institute.*
- Journal of the Franklin Institute. Vol. VII. Third Series. Feb. 1844. 8vo.—*From Dr. R. M. Patterson.*
- The Annual Report of the Board of Directors of the Pennsylvania Institution for the Deaf and Dumb, for 1843. 8vo.—*From the Directors.*
- Report of the Pennsylvania Hospital for the Insane, for the Year 1843. By Thomas S. Kirkbride, M.D., Physician to the Institution. Philadelphia, 1844. 8vo.—*From the Managers.*
- The Electrical Magazine. Conducted by Mr. Charles V. Walker.

Published Quarterly. Vol. I. No. 3. Jan. 1844. London. 8vo.—*From the Editor.*

M<sup>c</sup>Elroy's Philadelphia Directory for 1843. 8vo.—*From Mr. Du Ponceau.*

ADDITIONS TO THE LIBRARY BY PURCHASE.

Astronomische Nachrichten. Nos. 491 & 492. 4to.

Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences. Tome XVII. Nos. 22 to 26, inclusive. Tables des Comptes Rendus. Tome XVI. Paris, 1843. 4to.

Mr. Kane announced the death of Mr. Nicholas Biddle, a member of the Society,—who died at Andalusia, Bucks County, on the 27th of February,—and referred at some length, to the character of the deceased, and to the services which he had rendered to the literature of his country.

Mr. Smith presented, for the inspection of the members, a piece of the gun, which had recently burst on board the Princeton.

He exhibited it for the more especial purpose of showing the changes that wrought iron undergoes under particular circumstances. He presented specimens of iron which were fibrous, and which, after having been cold-swaged, became crystalline. When the iron was annealed, the fibrous arrangement again became manifest. The properties of wrought and cast iron have only recently attracted the attention of philosophers.

Mr. Smith referred to the accident on the Versailles railway, and to the report of the French *savans* on the subject. He observed that the iron on railways becomes crystalline, under the jars to which it is subjected. He stated, that various causes had been assigned to the explosion on board the Princeton; and remarked, that if the iron had been originally fibrous, it certainly is crystalline now, the crystals being readily distinguishable even by the naked eye. He remarked, farther, that the defect was supposed to be in the original formation of the piece, which had become granular, perhaps, in the forging; and it has been supposed, that the crystalline texture may have been favoured by the repeated firing of the gun. Mr. Smith thought that the accident suggested the importance of occasionally annealing pieces of ordnance, as had been found necessary in the case of railway axles, which are annealed periodically.